COMMENTS

General

1. Despite recent short supplies of iron ore in the Soviet economy, the rate of growth of machine building has not been appreciably affected, registering an annual increase of approximately 14% gross production each year during 1956-58. Specific types or shapes of metal may have been in short supply from time to time, but such shortages appear to have been due primarily to poor scheduling of production or distribution. Apparently machine building enjoys a high priority in the allocation of scarce resources.

2. In the discussion of increasing production through the addition of new capacity, it is not always clear in the report whether the new capacities referred to are net or gross additions. Furthermore, although quantitative data are probably not available, some mention should probably be made of the ability to increase capacity through replacement and modernization of equipment without any significant capital construction being involved. Since the official recognition of technical obsolescence in 1955, programs to replace equipment even before it is fully depreciated by more productive equipment have been inaugurated. This method of increasing capacity places the burden of the responsibility on the machine building industry rather than on the construction industry.

Specific

1. P. 3 - continued paragraph

Soviet foreign trade in metallurgical equipment is significant and will remain an important factor affecting the ability of the USSR to meet the Seven Year Plan goals for the production of rolled steel and pipe. At the same time that the USSR is supplying or making commitments to supply metallurgical equipment to underdeveloped countries inside and outside the bloc, she is relying heavily on Czechoslovakia and East Germany for metallurgical equipment to meet domestic production requirements. Imports of metallurgical equipment from these two countries equalled about 20% of domestic Soviet production in 1955, 15% in 1956, and 21% in 1957. An even larger percentage is obtained when comparing imports and domestic production of rolling mill equipment alone: approximately 31% in 1955, 24% in 1956, and 36% in 1957. In 1955 the combined exports of rolling mill equipment from East Germany and Czechoslovakia to the USSR represented about 83% of their combined domestic production, in 1956, 60%, and in 1957, almost 90%.

Comments (continued)

A major factor in recent failures to meet the planned goals for the production of rolling mill equipment has been the lack of sufficient productive capacity. The Ural Heavy Machine Building Plant at Sverdlovsk and the Novo-Kramatorsk Heavy Machine Building Plant at Kramatorsk, the only plants capable of producing most of the larger mills, have reportedly been overburdened with orders for heavy machinery and equipment other than metallurgical equipment. As compared with the production of 111,000 metric tons of rolling mill equipment in the peak year of 1956, the Seven Year Plan calls for production of 200,000 - 220,000 metric tons in 1965. Meanwhile there is little evidence that a significant amount of new production capacity is scheduled under the Plan. The Alma-Ata Heavy Machine Building Plant is scheduled to be completed and modernized during 1959-65 but the extent to which capacity will increase has not been announced. Construction of the new rolling mill equipment plant at Petropavlovsk is now scheduled to begin in 1961 although preliminary construction work was reported to be in progress in 1956 following announcement of the Sixth Five Year Plan. Because the plans call for completion of only several preparatory and auxiliary shops by 1965, it is not likely that substantial benefits in the form of new productive capacity will be realized from this project during 1959-65.

For these reasons it appears that the USSR will have to rely heavily on imports of rolling mill equipment and/or specific steel shapes and pipe if the requirements of the economy are to be met. Unless exploitation of gas reserves is also postponed until the latter part of the seven year period, it is difficult to see how "a large part of the pipeline construction" can be deferred until the latter part of the period. Possibly a problem in raising the pipelines to the planned capacity will be the supplying of the required pumps and compressors in the face of heavy demand from the chemical industry for other types of equipment manufactured by the chemical equipment industry.

2. P. 4 - first full paragraph

The responsible analyst is in agreement with statement concerning serial production of "large turbogenerators" although this term might be clarified by indicating the rated capacity specifically referred to and by changing the word "turbogenerators" to "turbines and generators." It is pointed out that the term "turbogenerators" is ambiguous in English in that it may refer either to a turbine and generator together or to a turbine-driven generator alone.

Comments (continued)

Since the statement concerning series production is equally applicable to both turbines and generators it might be well to so specify both here and in other passages dealing with this problem. Since turbines are not, properly speaking, electrical equipment it would be better to refer both here and elsewhere to the "power equipment industry" instead of the "electrical equipment industry."

3. P. 13 - first full paragraph

Will "the processing of petrochemicals" be the responsibility of the petroleum industry or the chemical industry? Only to the extent that it will be the responsibility of the petroleum industry will investments for capacity to process petrochemicals be reflected in the "investment per unit of output of crude oil refinery products."

4. P. 16 - second paragraph

The figures cited for the electrotechnical industry and machine building as a whole appear to be noncomparable. The 70 percent figure for the electrotechnical industry includes not only raw and basic materials but also the Soviet category of auxiliary materials. In the case of machine building, raw and basic materials accounted for 49.4 percent of cost in 1955 but auxiliary materials accounted for an additional 4.9 percent. Whereas data on the electrical equipment industry would include generators, electric motors, electric ovens, electric welding equipment, etc., they would not include turbines.

5. P. 53 - second paragraph, third line

ruble or $ ?

6. P. 67 - first full paragraph

Cf. comment #2 above.

7. P. 67 - first full paragraph, last two sentences

Analyst feels statement is over-simplified but concurs in general.

8. P. 68 - fourth line from top

"Goals" does not appear to be the proper word.

9. P. 82 - last full and following sentence

Probably true; not presently in a position to comment on this comparison.

Comments (continued)

10. P. 97 - continued paragraph, last two sentences

Probably true; not in a position to verify.

11. P. 117 - continued paragraph, last sentence

Cf. comment #1 above.

12. P. 121 - paragraph under subheading "2"

The design and production of new and improved types of underground coal mining equipment might also be mentioned. The program for coal mining machinery under the Seven Year Plan calls for the creation and series production of 350 new types of coal mining equipment, and it is planned to double the productive capacity of Soviet coal mining equipment plants.

13. Pp. 126-131

Pages missing.

14. P. 140 - last paragraph, first sentence

Analyst concurs.

15. P. 141

Column 2 of Table 38 shows 60 units of 100 mw installed at the end of 1958. This figure does not coincide with Teploenergetika (no 5, 1959, p. 4) which states that 58 units of 100 mw had been installed at the time the article was written. If later data have appeared to justify the use of the 60 figure, we suggest that some change may have to be made in column 3 of the table, which shows planned installation in 1959-65, so that the figures will be compatible.

16. P. 144 - subheading 3, first paragraph

Probably a fair statement but does not consider imports. See comment #2 in reference to use of term "turbogenerator." If it is desired to refer to generators only in this report, the industry producing them should be referred to as the "electrotechnical industry" and not the "turbogenerator industry."

Comments (continued)

17. P. 145 - first complete sentence

Unless there are data showing planned production for 1958, suggest changing the phrase "planned production" (sixth line from top) to "anticipated production." According to our calculations, production in 1958 was 0.6 million kw or 10.3% less than the anticipated production in 1958.

18. P. 147 - last complete sentence

Statement is contradicted by data for crude oil and copper in Table 40 (p. 148)

19. P. 167 - first paragraph, second sentence

This sentence implies that the Ukraine and Ural Regions (III and VIII) were largest sources of electric power production in 1958. Table 47, however, shows the Central Region (VII) to have produced a greater percentage of the total than the Ukraine in 1958 (although production in kwh was apparently the same for these two regions).

20. P. 176 - first complete paragraph

Analyst concurs but suggests inserting "and steel finishing" between "steelmaking" and "capacity."

21. P. 184 - continued paragraph, first sentence

Analyst concurs.

22. P. 191 - first paragraph, second sentence

Analyst concurs.

23. P. 194 - second complete paragraph, last sentence

Analyst feels that delays in development of aluminum plants have not been primarily the result of the incapability of the equipment industry to produce suitable equipment but rather of plans to coordinate the production of equipment embodying the most advanced technology with construction of power stations and aluminum plants embodying modern efficiency and low cost production.

24. P. 195 - last paragraph

If it were stated that some operations in the underground mining of coal are still very poorly mechanized it might be clearer to the reader why productivity still remains low at mines "equipped with modern machinery." Suggest rephrasing last sentence to

Comments (continued)

read: "Although obsolescence is a problem in the coal industry, it is doubtful whether even extensive modernization of extractive and processing equipment and facilities would result in sufficient benefits to reverse the trend from coal to petroleum in the Soviet economy."

25. P. 199 - last two sentences

Because initial capital construction costs are not "charged off" in the cost of output under the Soviet Khozraschet system, it is believed that increases in amortization rates are connected with the recognition of technological obsolescence in machinery in 1955 and the higher costs of replacing relatively simple equipment with more complex (and more expensive) equipment rather than with construction costs.

26. P. 201 - last sentence

Analyst concurs.

27. P. 206 - last sentence

Analyst concurs.

28. P. 210 - last paragraph

Analyst concurs.

29. P. 227 - last paragraph

Cf. comment #4 above

30. P. 232

Share of coal in total fuel balance given as 59 percent in 1956 and 42 percent in 1965 (page 230). Why not use these data instead of N.A. in Table 62?